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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,505	07/27/2001	Fabio Cinelli	CM-2016MC	9733

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EXAMINER	
LEE, RIP A	

ART UNIT	PAPER NUMBER
1713	6

DATE MAILED: 04/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/917,505	CINELLI ET AL.
	Examiner	Art Unit
	Rip A. Lee	1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 19* is/are rejected.

7)☒ Claim(s) *1 and 15-18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

This office action follows a response filed on March 11, 2003. Applicants have amended claims 1, 2, 5, and 10.

Drawings

1. The corrected or substitute drawings were received on March11, 2003. These drawings are acceptable. The examiner thanks Applicants for locating definitions for reference numbers **54** and **68**.

Claim Objections

2. Claim 1 is objected to because of the following informalities: Use of the term "at least partially" is not understood. The modifier "at least" adds nothing to the claim. That the polymer is partially crosslinked implies that "at least" some portion of it contains crosslinking. Appropriate correction is required.

3. Claims 15-18 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The present claims are drawn to an adhesive. The subject matter of claims 15-18 relates to the article to which the adhesive has been applied rather than to the adhesive itself. As such, the claims fail to limit further the invention of the parent claim.

The section in MPEP 608.01(n) III, cited by Applicants, has been reviewed. It has been deemed that the parent claim is drawn to an adhesive formed from a polymer that is partially crosslinked by radiation. It is not drawn to the waste management device. Furthermore, the phrase containing the elements, waste management device, bag, flange, aperture, wearer and garment facing surfaces, are all part of an intended use recitation. The adhesive *might be* applied to said device, and accordingly, claims 15-18 would describe certain elements of a merely putative device. As such, it can not be seen how claims 15-18 further limit the subject matter (*i.e.*, the adhesive) of the parent claim. Therefore, the claim objection has not been withdrawn.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-11 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/28014 to Cinelli *et al.* in view of GB 2 115 431 to Sieverding.

Cinelli *et al.* teaches adhesives that have substantially gel-like structure and are preferably gels by virtue of the fact that the prevailing component is a plasticizer and due to the fact that a macromolecular/polymeric component is also present, which exists in the form of a three-dimensional network caused by crosslinking between molecules (page 12, lines 18-27). Adhesives of the invention are generally comprised of 45-99.5 wt % of plasticizer selected from water, alcohols, or glycols, and 0.5-20 wt % of a polymeric compound selected from polyacrylics, polyvinyl alcohols, polyethylene oxides, and polyvinyl pyrrolidones (claims 5 and 6; note that these compounds coincide with the compositional requirements set forth in present claims 10, 13, and 14). Although Cinelli *et al.* describes formation of chemical crosslinks by condensation reactions or *via* added crosslinking agent, the reference fails to mention irradiative methods for effecting chemical crosslinking.

Such a process is well established in the art. As shown in Sieverding, irradiation of adhesive compositions comprising the same polymer and plasticizers presently claimed effects crosslinking to form a three-dimensional network. Since the method of Sieverding achieves the same goal of creating chemical crosslinks in the same types of adhesive composition, one having skill in the art would find it obvious to use apply radiation to the adhesive composition of Cinelli *et al.* in order to form a crosslinked adhesive. The expectation that such a process would work successfully provides the requisite motivation to combine the teachings to arrive at the methodology recited in present claim 1.

Furthermore, the reference also states that mixed phase compositions are preferred for adhesives of the invention (page 14, line 21). A mixed phase composition is one in which both hydrophobic and hydrophilic components, possibly in both plasticizers and polymers, form two or more separate phases (page 4, lines 8-10). Thus, the subject matter of present claim 11 is also covered in the prior art. The difference between the prior art and the present claim is the requirement that the adhesive polymer is at least partially crosslinked by radiation.

The adhesives in Cinelli *et al.* are characterized by the parameters G''_{25}, G'_{37}, and G''_{37}. The viscous modulus is related to thickness C according to the equation $G''_{25} \leq [(4.26 + C)1605]$ Pa (claim 1). Regardless of the value of C, the value of G''_{25} will be less than that imposed in present claims 5 and 6. The adhesive also possesses G'_{37} in the range of 1500-20,000 Pa and G''_{37} in the range of 100-15,000 Pa. These ranges lie squarely within the ranges set forth in present claim 7, and they overlap substantially the ranges set forth in present claims 8 and 9.

The reference is silent with respect to the initial peel strength, P_I, and final peel strength, P_F, of the adhesives. Since peel strength is an inherent property of adhesives, and since the prior art material is an adhesive, it follows that the prior art adhesive also possesses peel strength. As such, there is every expectation to believe that this property can be measured according to the method of the present application. Since the prior art material and that of the present invention have essentially the same composition, as evidenced by their exhibiting essentially the same rheological properties G''_{25}, G'_{37}, and G''_{37}, a reasonable basis exists to believe that they would display essentially the same initial and final peel strength described in present claims 1-4. Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to

establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

The reference is also silent with respect to the water absorption capacity of the adhesive. However, in view of the fact that the adhesive is essentially the same as that presently claimed (*vide supra*), and in view of the fact that the adhesive is comprised mainly of hydrophilic components, a reasonable basis exists to believe that it displays essentially the same water absorption capacity. Again, the burden of proof is shifted to the Applicants to establish an unobviousness difference.

Finally, Cinelli *et al.* also states that mixed phase compositions are preferred for adhesives of the invention (page 14, line 21). A mixed phase composition is one in which both hydrophobic and hydrophilic components, possibly in both plasticizers and polymers, form two or more separate phases (page 4, lines 8-10). Hence, it is maintained that the skilled artisan would find it obvious to arrive at subject matter of present claim 11 because it is taught in the prior art.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cinelli *et al.* in view of Sieverding as applied to claims 1-11 and 13-18 above, and further in view of EP 0 850 649 to Coles *et al.*

Although Cinelli *et al.* teaches composition containing both hydrophobic and hydrophilic components, the inventors do not indicate practical working ratios of the two components. Coles *et al.* shows that adhesives containing 30-70 wt % of hydrophilic components and 30-70 wt % of hydrophobic components affords satisfactory adhesives which exhibit properties, G'_{37}, and G''_{37} that meet the requirements set forth in the present claims. Therefore, one having ordinary skill in

the art, having understood the subject matter of the two references, would have found it obvious to use the hydrophilic-hydrophobic ratio taught in Coles *et al.* in order to arrive at present claim 12. One would have found it obvious to combine the teachings because both references teach adhesive compositions containing hydrophilic and hydrophobic components and having the same rheological properties.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cinelli *et al.* in view of Sieverding as applied to claims 1-11 and 13-18 above, and further in view of WO 96/33683 to Lichstein.

Neither Cinelli *et al.* nor Sieverding teaches the amount of adhesive to be applied to the wearer facing surface of the disposable absorbent article. Lichstein shows that an adhesive coating weight of 2 mg/cm^2 (claim 12) is suitable for the wearer facing surface of disposable absorbent articles (claims 1 and 2). Thus, it would have been obvious to one having ordinary skill in the art to use a coating weight of 2 mg/cm^2, as taught by Lichstein, in order to arrive at the claims of the present invention. One would have found it obvious to do so because this amount is adequately disclosed in the reference.

9. Claims 1-11 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/28021 to Cinelli *et al.* in view of GB 2 115 431 to Sieverding.

Cinelli *et al.* discloses an adhesive comprising a polymer selected from polyacrylics, polyvinyl alcohols, polyethylene oxides, and polyvinylpyrrolidones, their copolymers and derivatives, and a plasticizer selected from water or (poly)glycols (claim 6). The topical adhesive of the invention has a substantially gel-like structure or is a gel (page 14, lines 23) by

virtue of a three-dimensional network caused by physical or chemical crosslinks between molecules (page 14, line 30). The difference in between the prior art and the present claim is the requirement that the polymer is at least partially crosslinked by radiation.

Although Cinelli *et al.* contemplates formation of chemical crosslinks and use of crosslinking agents, the reference does not provide much detail as to how this may be accomplished. Sieverding shows that irradiation of adhesive compositions comprising the same polymer and plasticizers presently claimed effects crosslinking to form a three-dimensional network. Since the method of Sieverding achieves the same goal of creating chemical crosslinks in the same types of adhesive composition, one having skill in the art would find it obvious to use apply radiation to the adhesive composition of Cinelli *et al.* in order to form a crosslinked adhesive. The expectation that such a process would work successfully provides the requisite motivation to combine the teachings to arrive at the methodology recited in present claim 1.

The adhesive of Cinelli *et al.* is characterized by G'_{37} in the range of 1500-20,000 Pa and G''_{37} in the range of 100-15,000 Pa, such that the ratio of G'_{37} to G''_{37} is 3 to 30 (claim 3), and by viscous modulus G''_{25} wherein $G''_{25} \leq [(4.26 + C)1605]$ Pa (claim 1). These ranges overlap substantially the ranges set forth in present claims 5- 9. In light of the fact that the constitution of the adhesive of the prior art and the present invention are essentially the same, and in view of the fact that they have the same properties G'_{37}, G''_{37}, and G''_{25}, a reasonable basis exists to believe that the prior art adhesive would exhibit peel strengths P_I and P_F recited in present claims 2-4. Since the PTO does not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ

430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Finally, Cinelli *et al.* instructs that mixed phase compositions in which both hydrophilic and hydrophobic components form two or more separate phases (page 16, lines 9-11), and stress further that mixed phase compositions are preferred in the applications of their invention (page 16, line 22). Hence, it is maintained that the skilled artisan would find it obvious to arrive at subject matter of present claim 11 because it is taught in the prior art.

Response to Arguments

10. The provisional obviousness-type double patenting rejection of claims 1-11 and 19 has been overcome by amendment.

11. The rejection of claims 1-11 and 13-18 under 35 U.S.C. 102(a)/35 U.S.C. 103(a) over WO 98/28014 to Cinelli et al. has been overcome by amendment.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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April 23, 2003

DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER